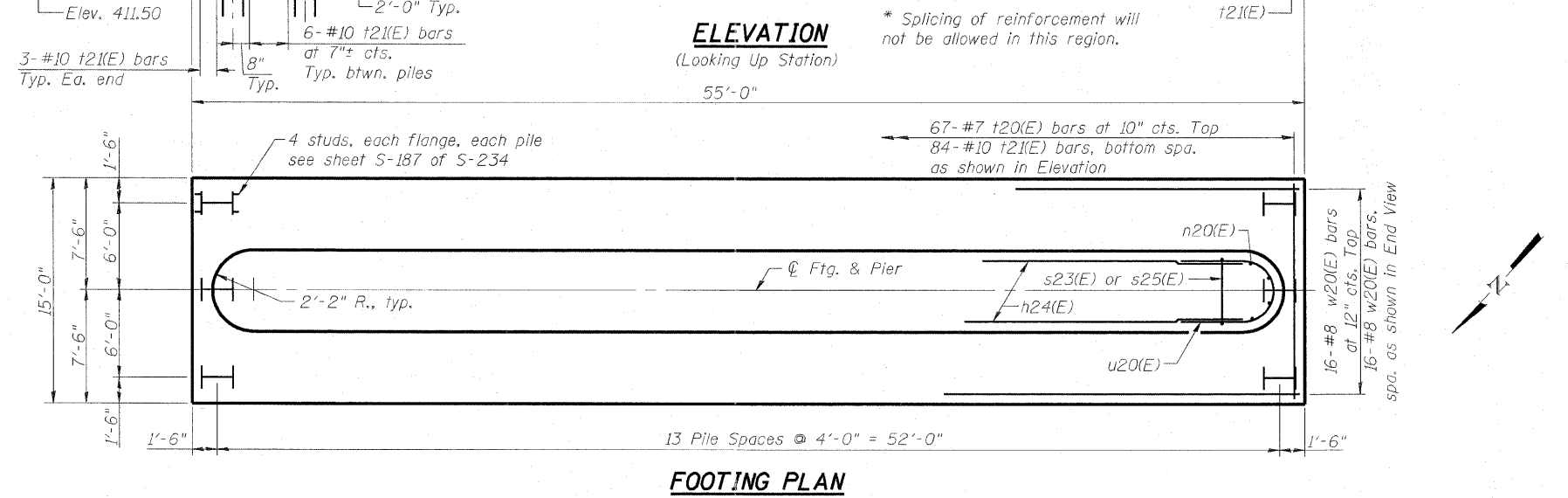
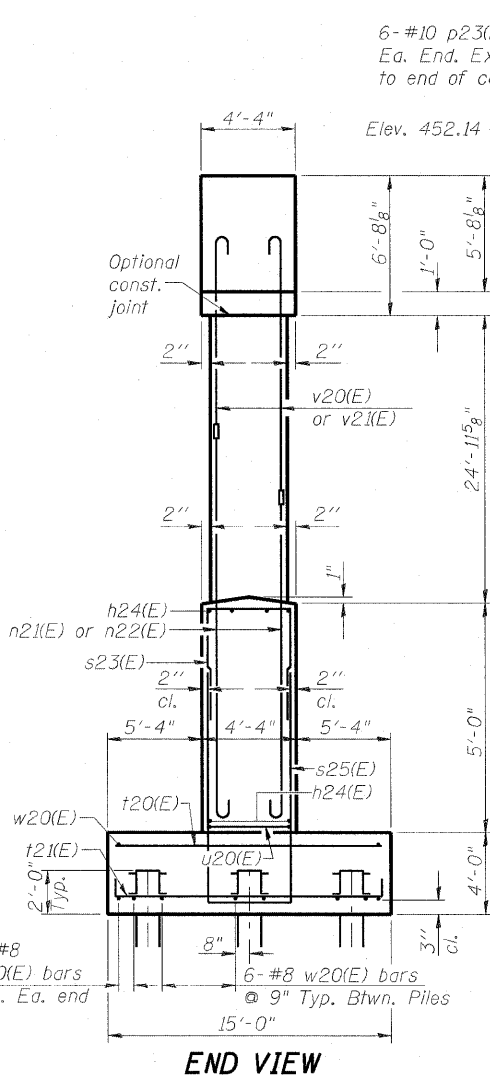
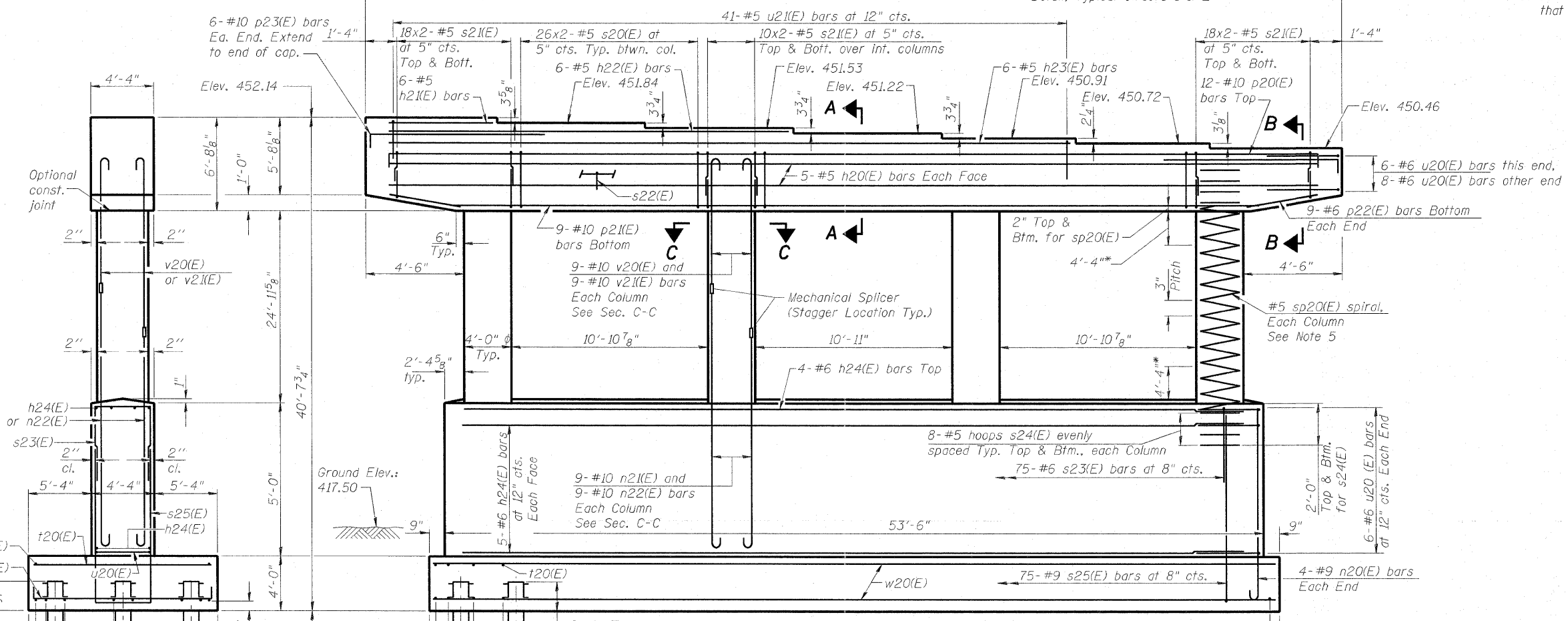


- Notes:
1. Space reinforcement in cap to miss anchor bolts.
 2. Pour steps monolithically with cap.
 3. For details of piles, see sheet S-187 of S-234.
 4. ϕ of Pier is radial to ϕ 70E55N at Sta. 53+44.00.
 5. #5 sp20(E) spiral, each column
 - 1) Provide $1\frac{1}{2}$ extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & crashwall. Provide 4-#4 spacers or equivalent.
 - 2) When splicing spiral reinforcement is necessary, the spirals shall be provided with $1\frac{1}{2}$ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 6. Contractor shall use Mechanical Splicers in columns that will fit between spirals.



PILE DATA

Type: HP 12x63
 Nominal Required Bearing: 450 kips
 Factored Resistance Available: 225 kips
 Est. Length: 114'
 No. Production Piles: 42
 No. Test Piles: 0

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	10	#5	53'-5"	—
h21(E)	6	#5	5'-8"	—
h22(E)	6	#5	23'-8"	—
h23(E)	6	#5	40'-0"	—
h24(E)	14	#6	49'-2"	—
n20(E)	8	#9	9'-9"	U
n21(E)	36	#10	11'-5"	U
n22(E)	36	#10	13'-5"	U
p20(E)	12	#10	57'-1"	U
p21(E)	9	#10	49'-9"	U
p22(E)	18	#6	5'-9"	U
p23(E)	12	#10	11'-10"	U
s20(E)	156	#5	15'-7"	□
s21(E)	224	#5	10'-8"	□
s22(E)	54	#5	5'-5"	□
s23(E)	75	#6	8'-6"	□
s24(E)	64	#5	11'-6"	□
s25(E)	75	#9	21'-0"	□
** sp20(E)	4	#5	25'-4"	W
t20(E)	67	#7	14'-8"	—
t21(E)	84	#10	18'-4"	—
u20(E)	26	#6	18'-2"	U
u21(E)	41	#5	12'-4"	U
v20(E)	36	#10	24'-2"	U
v21(E)	36	#10	22'-2"	U
w20(E)	32	#8	54'-8"	—
Structure Excavation		Cu. Yd.	249.1	
Concrete Structures		Cu. Yd.	263.6	
Reinforcement Bars, Epoxy Coated		Pound	50,860	
Furnishing Steel		Foot	4,788	
Piles HP 12x63		Foot	4,788	
Driving Piles		Foot	4,788	
Pile Shoes		Each	42	
Mechanical Splicers		Each	72	

** Length is height of spiral.
 See next sheet for Bar Details and Sections.